SIRECT ELECTRONIC

SBL40L60CTH/FCTH

Power Schottky Rectifier - 40Amp 60Volt

Features

-Plastic package has Underwriters Laboratory Flammability Classifications 94V-0
-High Junction Temperature Capability
-Low forward voltage, high current capability
-High surge capacity
-Low power loss, high efficiency
-Halogen-Free

Application

-Switching-Mode Power Supply
-Solar-System Control Box

Absolute maximum ratings

Symbol	Ratings	Unit	Conditions
$I_{F(AV)}$	40	A	Average Forward Current
V_{RRM}	60	V	Repetitive Peak Reverse Voltage
I_{FSM}	400	A	Peak Forward Surge Current
V_F	0.50	V	Forward Voltage Drop
T_j , T_{stg}	-50 to +150	ºC	Operating and Storage Temperature

Electrical characteristics

Parameters	Symbol	Ratings	Conditions
Maximum Instantaneous Forward Voltage	V_F	0.65V 0.50V	Per Leg at I_F = 20A Tc = 25ºC Tc = 125ºC
Maximum Reverse Leakage Current	I_R	1.0mA	Per Leg at V_R = 60V Tc = 25ºC
Maximum Voltage Rate of Change	dv/dt	10,000 V/μs	Rated V_R
Typical Thermal Resistance,Junction to Case	$R_{\theta (j-c)}$	2.2 ºC/W 4.5 ºC/W	Per Leg TO-220AB ITO-220AB

June 2010 / Rev.6.6

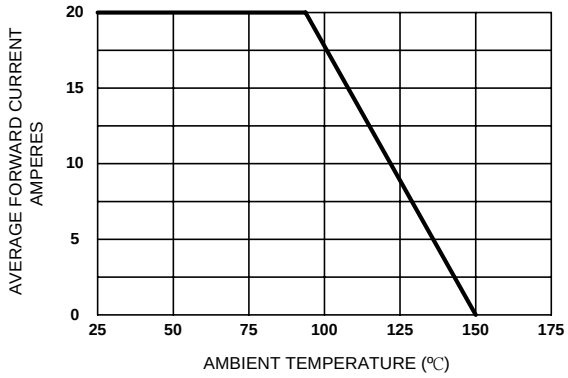


Figure 1. Forward Current Derating Curve

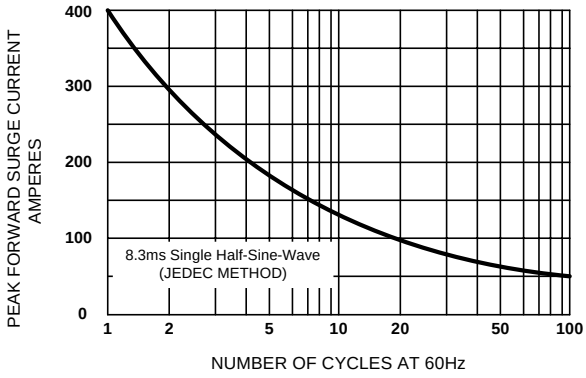


Figure 2. Maximum Non-repetitive Surge Current

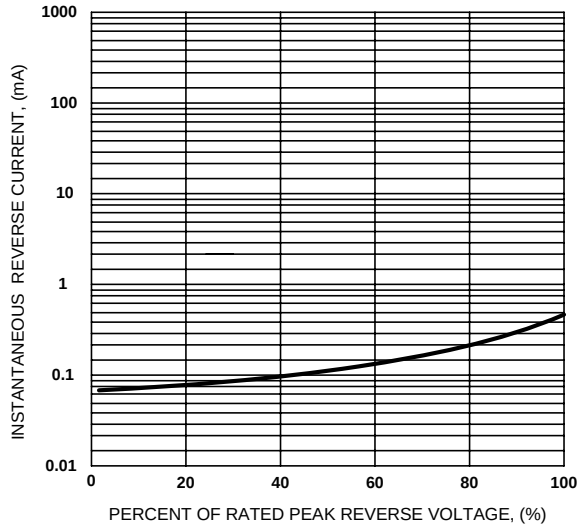


Figure 3. Typical Reverse Characteristics

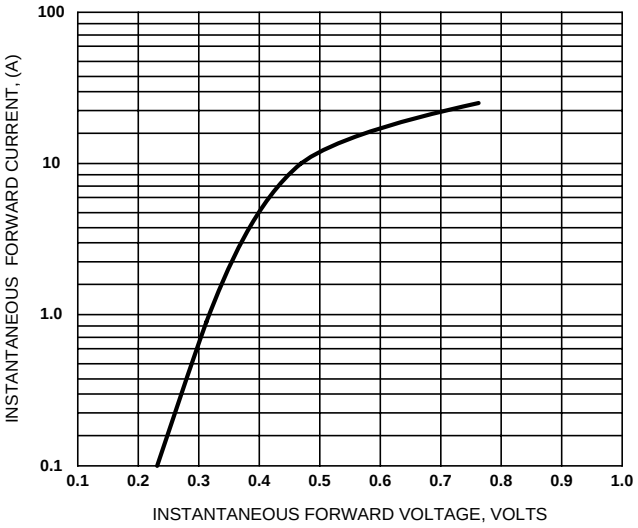


Figure 4. Typical Forward Characteristics

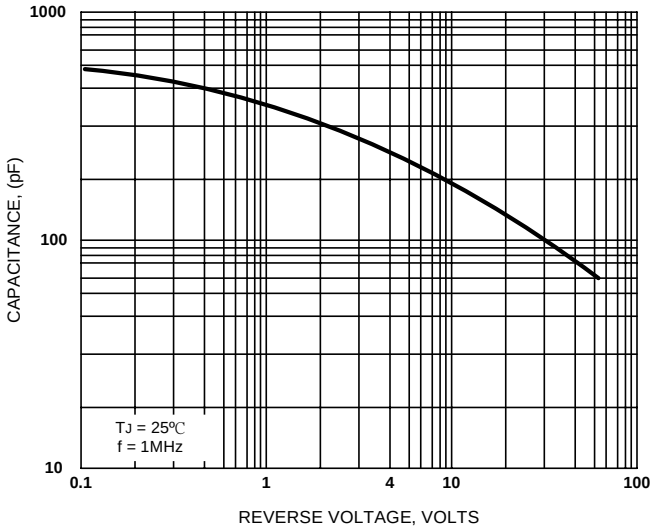
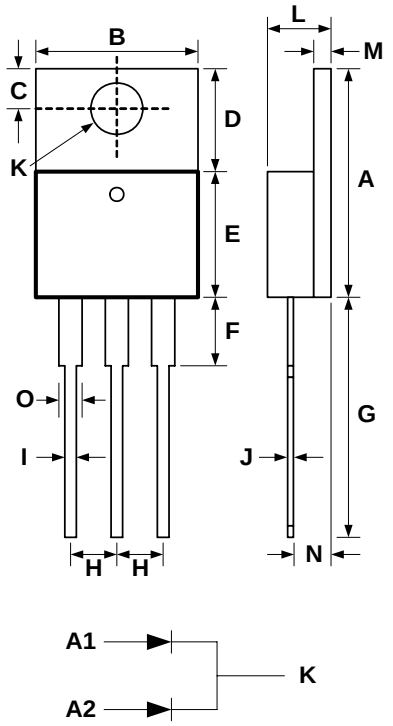


Figure 5. Typical Junction Capacitance

SBL40L60CTH

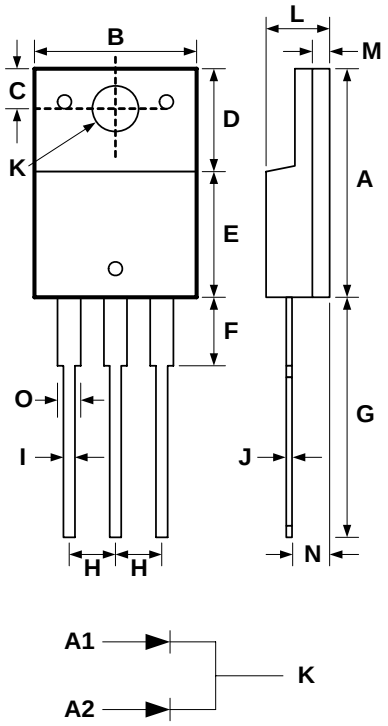
TO-220AB



DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.579	.606	14.70	15.40	
B	.392	.411	9.95	10.45	
C	.114	.126	2.90	3.20	
D	.248	.272	6.30	6.90	
E	.325	.350	8.25	8.90	
F	.153	.173	3.90	4.40	
G	.492	.551	12.50	14.00	
H	.096	.108	2.45	2.75	
I	.028	.039	0.70	1.00	
J	.010	.022	0.25	0.55	
K	.146	.157	3.70	4.00	
L	.167	.187	4.25	4.75	
M	.045	.057	1.15	1.45	
N	.089	.114	2.25	2.90	
O	.047	.055	1.20	1.40	

SBL40L60FCTH

ITO-220AB



DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.577	.600	14.65	15.25	
B	.386	.406	9.80	10.30	
C	.106	.122	2.70	3.10	
D	.258	.274	6.55	6.95	
E	.315	.331	8.00	8.40	
F	.110	.161	2.80	4.10	
G	.508	.551	12.90	14.00	
H	.089	.106	2.25	2.70	
I	.020	.028	0.50	0.70	
J	.020	.028	0.50	0.70	
K	.120	.138	3.05	3.50	
L	.169	.185	4.30	4.70	
M	.039	.051	1.00	1.30	
N	.079	.112	2.00	2.85	
O	.043	.055	1.10	1.40	